

REMARKS/ARGUMENTS

Request for Continued Examination:

The applicant respectfully requests continued examination of the above-indicated
5 application as per 37 CFR 1.114.

1. Rejection of claim 21 under 35 U.S.C. 102(e):

Claim 21 is rejected under 35 U.S.C. 102(e) as being anticipated by Ji (US
2005/0073607).

10 **Response:**

Claim 21 has been amended to specify that “the first pixel difference algorithm is substantially different from the second pixel difference algorithm”. This amendment to claim 21 is fully supported in the specification, such as in paragraph [0036], and no new matter is added.

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As recited in claim 21, “a first pixel difference set” is generated “from the received pixel values using a first pixel difference algorithm” and “a second pixel difference set” is generated “from the received pixel values using a second pixel difference algorithm”, where “the first pixel difference algorithm is substantially different from the second pixel difference algorithm”. Claim 21 also recites the step of “selecting a plurality of candidate angles according to the first pixel difference set and the gradient characteristic”.

In contrast, Ji does not teach all of the claimed features of claim 21. Ji
25 teaches in step S120 of Figure 2 calculating a Mean of Vertical Difference (MVD) of the pixels provided in the upper and lower scan lines. However, the MVD is only a **mean value** of the respective pixel pairs, and the MVD does not represent a “first pixel difference set” as is claimed. Consequently, Ji does not teach the limitation of “selecting a plurality of candidate angles according to the first pixel
30 difference set and the gradient characteristic” since Ji uses the MVD to compare

with the Mean of Horizontal Difference (MHD) to decide which interpolation method to use. As said before, since the MVD is a single mean value, it does not represent the claimed “first pixel difference set”. Furthermore, although Ji teaches in step S160 of Figure 2 calculating difference values for pixel pair combinations, this only represents a single pixel difference set calculated using a single pixel difference algorithm.

Thus, Ji does not teach “a first pixel difference set” is generated “from the received pixel values using a first pixel difference algorithm” and “a second pixel difference set” is generated “from the received pixel values using a second pixel difference algorithm”, where “the first pixel difference algorithm is substantially different from the second pixel difference algorithm”.

For the above reasons, the applicant respectfully submits that Ji fails to teach all of the limitations of the currently amended claim 21, and reconsideration of claim 21 is respectfully requested.

2. Rejection of claims 1 and 3-20 under 35 U.S.C. 103(a):

Claims 1 and 3-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Campbell (US 6133957) in view of Hahn (US 7092033).

Response:

Like claim 21, claim 1 has also been amended to specify that “the first pixel difference algorithm is substantially different from the second pixel difference algorithm”. No new matter has been added through this amendment to claim 1.

As recited in claim 1, “a first pixel difference set” is generated “from the received pixel values using a first pixel difference algorithm” and “a second pixel difference set” is generated “from the received pixel values using a second pixel difference algorithm”, where “the first pixel difference algorithm is substantially

different from the second pixel difference algorithm". Rather than teaching or suggesting different first and second algorithms for generating first and second pixel difference sets, respectively with the received pixel values, Campbell applies a same function to pixel sets 111 and 211 and pixel sets 112 and 212 respectively, thereby generating measurements of variance v_{311} and v_{312} (Campbell: col. 3, line 57- col. 4, line 17). The pixel sets (111 and 211) and (112, 212) each are meant to be non-overlapping pixel sets of the image concerned, which in comparison to the received pixel values as recited in claim 1, occupy different scopes as claimed in their respective inventions. In the specification of the instant application (paragraphs [0032] - [0042]), the same pixel may be used for more than one time to obtain the desired first and second difference sets. Therefore, pixel sets (111, 211) and (112, 212) of Campbell fail to read on the claimed received pixel values.

In addition, it is anticipated that the same measurement function taught by Campbell will be used for all pairs of sets of pixels (111, 211) and (112, 212). However, as recited in claim 1, different sets are generated with different algorithms. The claimed algorithms should not resemble a single function taught by Campbell.

For at least the forgoing reasons, claim 1 should be found allowable over the cited references, and the rejections based thereon should be withdrawn accordingly. Claims 3-20 are dependent upon claim 1, and should be allowed if claim 1 is allowed. Reconsideration of claims 1 and 3-20 is therefore respectfully requested.

3. Rejection of claim 2 under 35 U.S.C. 103(a):

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Campbell (US 6133957) in view of Hahn (US 7092033), and further in view of De Haan (PCT Pub WO03/038753, also published as US 7206027).

Response:

Claim 2 is dependent upon claim 1, and should be allowed if claim 1 is allowed. Reconsideration of claim 2 is respectfully requested.

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4. Rejection of claim 22 under 35 U.S.C. 103(a):

Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ji (US 2005/0073607) in view of Yamashita (US 5,347,599).

10 **Response:**

Claim 22, like claim 21, has been amended to specify that “the first pixel difference algorithm is substantially different from the second pixel difference algorithm”.

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As said before with respect to claim 21, Ji does not teach all of the claimed features of claim 22. Ji teaches in step S120 of Figure 2 calculating a MVD of the pixels provided in the upper and lower scan lines. However, the MVD is only a **mean value** of the respective pixel pairs, and the MVD does not represent a “first pixel difference **set**” as is claimed. Furthermore, although Ji teaches in step S160 of Figure 2 calculating difference values for pixel pair combinations, this only represents a single pixel difference set calculated using a single pixel difference algorithm.

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Thus, Ji does not teach “a first pixel difference set” is generated “from the received pixel values using a first pixel difference algorithm” and “a second pixel difference set” is generated “from the received pixel values using a second pixel difference algorithm”, where “the first pixel difference algorithm is substantially different from the second pixel difference algorithm”.

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30 For the above reasons, the applicant respectfully submits that Ji fails to

teach all of the limitations of the currently amended claim 22, and
reconsideration of claim 22 is respectfully requested.

5 In view of the claim amendments and the above arguments in favor of
patentability, the applicant respectfully requests that a timely Notice of Allowance be
issued in this case.

Sincerely yours,

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Note: Please leave a message in my voice mail if you need to talk to me. (The time in
D.C. is 12 hours behind the Taiwan time, i.e. 9 AM in D.C. = 9 PM in Taiwan.)

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